Applicant: Armand P. Neukermans et al.

Serial No.: 10/157.354

Attorney's Docket No.: 12485002002 / 13354XRUS03C Improvements for an Optical

Serial No.: 10/157,354 Filed: May 28, 2002

Page : 3 of 5

## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims

Please cancel claims 1-26.

27. A method of fabricating micro-mirror structures in a micro-mirror strip of micro-mirror structures comprising:

forming a pyramidal structure from a substrate material; and defining electrodes on the pyramidal structure.

- 28. The method of 27, wherein forming the pyramidal structure comprises: anisotropic etching the pyramidal structure to form steps of various depths in the structure.
- 29. The method of claim 27, wherein the electrodes include four electrodes and forming the electrodes further comprises

arranging each electrode on a different one of quadrants of the pyramidal structure.

- 30. The method of claim 28, wherein the steps are polygonal in shape.
- 31. The method of claim 27, wherein a second wafer is bonded to the processed wafer.

Applicant: Armand P. Neukermans et al.

Attorney's Docket No.: 12485Serial No.: 10/157.354

Attorney's Docket No.: 12485002002 / 13354XRUS03C Improvements for an Optical

Serial No.: 10/157,354 Filed: May 28, 2002

Page : 4 of 5

32. The method of claim 31, wherein the second wafer is a silicon-on-insulator wafer and is bonded to the wafer with a device side facing the wafer.

- 33. The method of claim 31, further comprising: disposing a material to define a mirror in a surface of the second wafer.
- 34. The method of claim 31, further comprising: defining sensors in the surface of the second wafer.
- 35. The method of claim 27, further comprising:
  adding dam structures to the wafer to isolate the structure from adjacent micro-mirror structures in a strip of micro-mirror structures.
- 36. The method of claim 34, further comprising:

  defining other electronic components of the micro-mirror structure in one or the other of the wafers.
  - 37. A hinge comprising:

a plurality of parallel hinge sections provided by vertical slots therein, the slots and parallel hinge sections being dimensioned to provide vertical and lateral stiffness to and a minimal torsion spring constant for the hinge.

38. A micro-mirror strip assembly comprising:

a frame;

an array of two-dimensional deflecting mirrors mounted in the frame; and

dams disposed between the mirrors to block viscous interaction between each of the two dimensional deflecting mirrors and adjacent ones of the two-dimensional deflecting mirrors in the array.